

SEQUENCE LISTING



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<120> Novel HEV Antigenic Peptide and Methods

<130> 8737-000010

<140> US 10/089,292

<141> 2002-08-28

<150> PCT/IB00/01393

<151> 2000-09-28

<150> CA 2,283,538

<151> 1999-09-30

<160> 20

<170> PatentIn version 3.3

<210> 1

<211> 642

<212> DNA

<213> Hepatitis E virus

<220>

<221> CDS

<222> (1)..(642)

<400> 1

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Gln	Leu	Phe	Tyr	Ser	Arg	Pro	Val	Val	Ser	Ala	Asn	Gly	Glu	Pro	Thr	
1				5					10					15		

gtt	aag	ctt	tat	aca	tct	gta	gag	aat	gct	cag	cag	gat	aag	ggg	att	96
Val	Lys	Leu	Tyr	Thr	Ser	Val	Glu	Asn	Ala	Gln	Gln	Asp	Lys	Gly	Ile	
			20					25					30			

gca	atc	ccg	cat	gac	atc	gac	ctc	ggg	gag	tct	cgt	gta	gtt	att	cag	144
Ala	Ile	Pro	His	Asp	Ile	Asp	Leu	Gly	Glu	Ser	Arg	Val	Val	Ile	Gln	
			35				40						45			

gat	tat	gac	aac	caa	cat	gag	cag	gac	cga	ccg	aca	cct	tcc	cca	gcc	192
Asp	Tyr	Asp	Asn	Gln	His	Glu	Gln	Asp	Arg	Pro	Thr	Pro	Ser	Pro	Ala	
	50					55					60					

cca	tcg	cgc	cct	ttt	tct	gtc	ctc	cga	gct	aat	gat	gtg	ctt	tgg	ctt	240
Pro	Ser	Arg	Pro	Phe	Ser	Val	Leu	Arg	Ala	Asn	Asp	Val	Leu	Trp	Leu	
65					70				75					80		

tct	ctc	acc	gct	gcc	gag	tat	gac	cag	tcc	act	tac	ggc	tct	tcg	acc	288
Ser	Leu	Thr	Ala	Ala	Glu	Tyr	Asp	Gln	Ser	Thr	Tyr	Gly	Ser	Ser	Thr	
			85					90						95		

ggc cca gtc tat gtc tct gac tct gtg acc ttg gtt aat gtt gcg acc 336
 Gly Pro Val Tyr Val Ser Asp Ser Val Thr Leu Val Asn Val Ala Thr
 100 105 110

ggc gcg cag gcc gtt gcc cgg tca ctc gac tgg acc aag gtc aca ctt 384
 Gly Ala Gln Ala Val Ala Arg Ser Leu Asp Trp Thr Lys Val Thr Leu
 115 120 125

gat ggt cgc ccc ctt tcc acc atc cag cag tat tca aag acc ttc ttt 432
 Asp Gly Arg Pro Leu Ser Thr Ile Gln Gln Tyr Ser Lys Thr Phe Phe
 130 135 140

gtc ctg ccg ctc cgc ggt aag ctc tcc ttt tgg gag gca ggt act act 480
 Val Leu Pro Leu Arg Gly Lys Leu Ser Phe Trp Glu Ala Gly Thr Thr
 145 150 155 160

aaa gcc ggg tac cct tat aat tat aac acc act gct agt gac caa ctg 528
 Lys Ala Gly Tyr Pro Tyr Asn Tyr Asn Thr Thr Ala Ser Asp Gln Leu
 165 170 175

ctc gtt gag aat gcc gct ggg cat cgg gtt gct att tcc act tac acc 576
 Leu Val Glu Asn Ala Ala Gly His Arg Val Ala Ile Ser Thr Tyr Thr
 180 185 190

act agc ctg ggt gct ggt ccc gtc tct att tcc gcg gtt gct gtt tta 624
 Thr Ser Leu Gly Ala Gly Pro Val Ser Ile Ser Ala Val Ala Val Leu
 195 200 205

gcc ccc cct ccg cgc tag 642
 Ala Pro Pro Pro Arg
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<210> 2
 <211> 213
 <212> PRT
 <213> Hepatitis E virus

<400> 2

Gln Leu Phe Tyr Ser Arg Pro Val Val Ser Ala Asn Gly Glu Pro Thr
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Val Lys Leu Tyr Thr Ser Val Glu Asn Ala Gln Gln Asp Lys Gly Ile
 20 25 30

Ala Ile Pro His Asp Ile Asp Leu Gly Glu Ser Arg Val Val Ile Gln
 35 40 45

Asp Tyr Asp Asn Gln His Glu Gln Asp Arg Pro Thr Pro Ser Pro Ala
 50 55 60

Pro Ser Arg Pro Phe Ser Val Leu Arg Ala Asn Asp Val Leu Trp Leu

atgcgccttc	ggcctatttt	gctgttgctc	ctcatgtttc	tgccatgct	gcccgcgcca	60
ccgcccggtc	agccgtctgg	ccgccgtcgt	gggcggcgca	gcggcggttc	cgccgggtgt	120
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cctttttctg	tcctccgagc	taatgatgtg	ctttggcttt	ctctcaccgc	tgccgagtat	1440
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ctccgcggta	agctctcctt	ttgggaggca	ggtactacta	aagccgggta	cccttataat	1680
tataacacca	ctgctagtga	ccaactgctc	gttgagaatg	ccgctgggca	tcgggttgct	1740

atttcactt acaccactag cctgggtgct ggtcccgctt ctatttcgc ggttgctgtt 1800
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 catactttcg atgacttctg cccggagtgc cgcaccttg gcctccaggg ctgtgctttt 1920
 cagtctactg tcgctgagct tcagcgcctt aagatgaagg tgggtaaaac tcgggagtta 1980
 tagtttattt gcttggtccc cccttctttc tgttgcttat ttctcttttc tgcgttcgc 2040
 gctccctgaa aaaa 2054

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 <211> 370
 <212> DNA
 <213> Hepatitis E virus

<400> 5
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 ccgccgtcgt gggcgggcca gcggcggttc cggcggtggt ttctgggggtg accgggttga 180
 ttctcagccc ttcgcaatcc cctatatcca tccaaccaac cccttcgccc cgatgtcacc 240
 gctgcggccg gggctggacc tcgtgttcgc caaccgccc gaccactcgg ctccgcttgg 300
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<220>
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 <222> (1)..(114)

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 acc agg ccc agc gcc ccg ccg ttg cct cac gtc gta gac cta cca cag 96
 Thr Arg Pro Ser Ala Pro Pro Leu Pro His Val Val Asp Leu Pro Gln
 20 25 30
 ctg ggg ccg cgc cgc taa 114
 Leu Gly Pro Arg Arg
 35

<210> 7
<211> 37
<212> PRT
<213> Hepatitis E virus

<400> 7

Asp Leu Val Phe Ala Asn Pro Pro Asp His Ser Ala Pro Leu Gly Val
1 5 10 15

Thr Arg Pro Ser Ala Pro Pro Leu Pro His Val Val Asp Leu Pro Gln
20 25 30

Leu Gly Pro Arg Arg
35

<210> 8
<211> 22
<212> DNA
<213> Artificial

<220>
<223> RT Primer E3R

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<210> 9
<211> 24
<212> DNA
<213> Artificial

<220>
<223> RT Primer E5R

<400> 9
aagcaaataa actataactc ccga 24

<210> 10
<211> 34
<212> DNA
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<220>
<223> Cloning Primer ORF2F

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gctggatccc agctgttcta ctctcgtccc gtcg 34

<210> 11
 <211> 30
 <212> DNA
 <213> Artificial

 <220>
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 <400> 11
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 <210> 12
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 <400> 12
 ccgggatccg acctcgtggt cgccaaccg 30

 <210> 13
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 caggaattcc ttagcggcgc ggccccagct g 31

 <210> 14
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 <212> DNA
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 <220>
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 <400> 14
 ggctcaccgg agtgtttctt c 21

 <210> 15
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 <212> DNA
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 <223> PCR Primer A5F

 <400> 15

ctttgatgac accgtcttct cg 22

<210> 16
<211> 22
<212> DNA
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<220>
<223> PCR Primer B3R

<400> 16
gtgtttcttc caaaaccctc gc 22

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gccgcagcaa aggcattcat g 21

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<400> 18

Gln Leu Phe Tyr Ser Arg Pro Val Val Ser Ala Asn Gly Glu Pro Thr
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Val Lys Leu Tyr Thr Ser Val Glu Asn Ala Gln Gln Asp Lys Gly Ile
20 25 30

Ala Ile Pro His Asp Ile Asp Leu Gly Glu Ser Arg Val Val Ile Gln
35 40 45

Asp Tyr Asp Asn Gln His Glu Gln Asp Arg Pro Thr Pro Ser Pro Ala
50 55 60

Pro Ser Arg Pro Phe Ser Val Leu Arg Ala Asn Asp Val Leu Trp Leu
65 70 75 80

Ser Leu Thr Ala Ala Glu Tyr Asp Gln Ser Thr Tyr Gly Ser Ser Thr
85 90 95

Gly Pro Val Tyr Val Ser Asp Ser Val Thr Leu Val Asn Val Ala Thr
 100 105 110

Gly Ala Gln Ala Val Ala Arg Ser Leu Asp Trp Thr Lys Val Thr Leu
 115 120 125

Asp Gly Arg Pro Leu Ser Thr Ile Gln Gln Tyr Ser Lys Thr Phe Phe
 130 135 140

Val Leu Pro Leu Arg Gly Lys Leu Ser Phe Trp Glu Ala Gly Thr Thr
 145 150 155 160

Lys Ala Gly Tyr Pro Tyr Asn Tyr Asn Thr Thr Ala Ser Asp Gln Leu
 165 170 175

Leu Val Glu Asn Ala Ala Gly His Arg Val Ala Ile Ser Thr Tyr Thr
 180 185 190

Thr Ser Leu Gly Ala Gly Pro Val Ser Ile Ser Ala Val Ala Val Leu
 195 200 205

Ala Pro Pro Pro Arg
 210

<210> 19
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<220>
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<400> 19
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34

<210> 20
 <211> 34
 <212> DNA
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<220>
 <223> pGEX20 Multiple Cloning Site

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34